



California Detection Systems, Inc.

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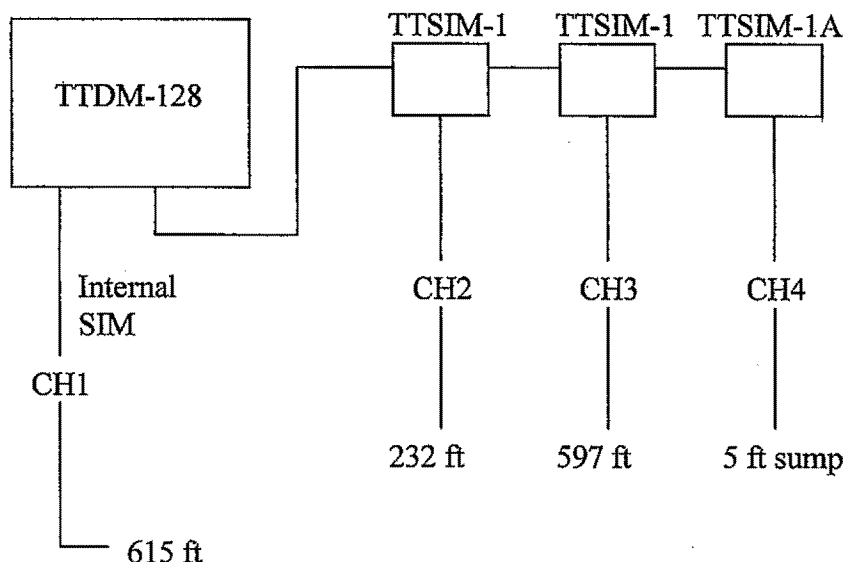
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Exide Technologies Leak Detection System Report

This Leak Detection System Consists of 1 TTDM-128 control panel, operating an internal SIM (Sensor Interface Module) and powering 2 external interface modules, TTSIM-1's and 1 TTSIM-1A. The Internal SIM and both SIM-1's are monitoring channels 1,2, and 3 with long length, under floor sensor cables in the distances of 615 ft, 232 ft, and 597 ft respectively. Channel 4, the SIM-1A, consists of a 5 foot length of sensor cable monitoring a sump. All cables are TT3000 aqueous solution sensing cables and are appropriate for this application.



This system has taken considerable damage since its install approximately 5 years ago.

Channel 4, the sump monitor is the only channel that is still in operation and is indicating fluid at 2 feet along its length.

Channel 3 has an intact and continuous cable. It is detecting multiple incidents of fluid along its length. This is indicated by unstable measurements of resistance along the cable. The average location of the leaks is around 250ft to 270ft. The TTSIM-1 powering

Channel 3 is inoperable and needs to be replaced. Its circuit board is completely corroded. It is receiving power but not capable of alerting the TTDM-128 of its presence.

Channel 2 has a properly functioning SIM however the cable is destroyed. From readings in the control panel history this cable has been undergoing severe corrosive attacks for a long time. The effects of the corrosion were slowly building resistance in the cable until current could no longer complete the circuit and all instrumentation reads "Cable Break". When the cable was still continuous leading up to two weeks ago, the added resistance from the corrosion was so bad that it was comparable to if the cable was 14,000 ft long. This cable will need to be replaced.

Channel 1 is the internal SIM directly from the TTDM-128. This SIM, an integral part of the TTDM-128, is functioning properly. The cable on this channel is the same situation as that of Channel 2, it is destroyed and will need replacement.

Our records show that this system was installed with bulk sensor cable. This means that in each channel it is one continuous length from start to finish and not modular sections connected together like extension cables. That being said, unfortunately, in each damaged channel there is no way to determine the location(s) of damage and the entirety of that cable must be replaced

The overall damage on this system is as follows:

- 1) 1 TTSIM-1 destroyed
- 2) 615 feet of TT3000 cable on CH 1
- 3) 232 feet of TT3000 cable on CH 2

An estimated budget for the replacement of nonfunctioning monitoring equipment and sensor cable is \$9,700.00

In the event of replacement, we would like to offer our design/consulting services to perhaps simplify the engineering and design of a future leak detection system.

If you should have any further questions, please do not hesitate to contact my office.

Sincerely,

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